

## CLAIMS

1. An intake system for an engine that includes plural throttle bodies having throttle valves for changing an intake passage area, characterized in that the plural throttle bodies are constituted by manually driven side throttle bodies having manually driven side throttle valves, which are opened and closed by a throttle operation of a rider, and an electrically driven side throttle body having an electrically driven side throttle valve, which is opened and closed by an electric motor, and the intake system includes valve opening control means that controls an opening of the electrically driven side throttle valve such that a specific output characteristic corresponding to an operating state of an engine is obtained.

2. An intake system for an engine according to claim 1, characterized in that the valve opening control means closes the electrically driven side throttle valve in a manner delayed by a first time constant as the manually driven side throttle valves close.

3. An intake system for an engine according to claim 2, characterized in that the valve opening control means closes the electrically driven side throttle valve in a manner delayed by a first time constant within a range up to a predetermined regulated opening as the manually driven side throttle valves close.

4. An intake system for an engine according to claim 2 or 3, characterized in that the valve opening control means changes a delay by the first time constant at the time when the brake is actuated so as to be larger than the delay by the first time constant at the time when the brake is not actuated or changes

the regulated opening at the time when the brake is actuated so as to be larger than a regulated opening at the time when the brake is not actuated.

5. An intake system for an engine according to claim 2 or 4, characterized in that the valve opening control means temporarily opens the electrically driven side throttle valve to a predetermined shift-down time opening at the time of shift-down and subsequently closes the electrically driven side throttle valve in a manner delayed by a the first time constant.

6. An intake system for an engine according to claim 1, characterized in that the valve opening control means opens the electrically driven side throttle valve in a manner delayed by a second time constant as the manually driven side throttle valves open.

7. An intake system for an engine according to any one of claims 1 to 6, characterized in that the valve opening control means makes an opening of the electrically driven side throttle valve identical with an opening of the manually driven side throttle valves when a vehicle speed is lower than a predetermined control lower limit speed or a gear is in neutral.

8. An intake system for an engine according to any one of claims 1 to 7, characterized in that the intake system learns fully-closed positions of the manually driven side throttle valves and the electrically driven side throttle valve to make the fully-closed positions identical with each other when a vehicle speed is lower than a predetermined learning time speed and an opening of the manually driven side throttle valves is smaller than a predetermined learning time opening.

9. An intake system according to any one of claims 1 to 8,

characterized in that the intake system learns a fully-closed position and a fully-opened position of the electrically driven side throttle valve and drives the electric motor only between the learned fully-closed position and fully opened position.

10. An intake system for an engine according to any one of claims 1 to 9, characterized in that the intake system further includes a mechanical return mechanism that forcibly closes the electrically driven side throttle valve to a predetermined return opening as the manually driven side throttle valves close.

11. An intake system for an engine according to claim 10, characterized in that the intake system learns a return opening range, in which the electrically driven side throttle valve is forcibly closed by the return mechanism, and drives the electric motor only in an opening range excluding the learned return opening range.